

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



550 701

(43) International Publication Date
7 October 2004 (07.10.2004)

PCT

(10) International Publication Number
WO 2004/085690 A1

- (51) International Patent Classification⁷: C22C 29/08, 29/00
- (21) International Application Number: PCT/CA2004/000391
- (22) International Filing Date: 15 March 2004 (15.03.2004)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data: 2,423,273 26 March 2003 (26.03.2003) CA
- (71) Applicant (for all designated States except US): INVEGYRE INC. [CA/CA]; 3633, rue Panet, Bureau 101, Jonquière, Québec G7X 8T7 (CA).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): CARON, Paul [CA/CA]; 825 Beauregard, App. 900, Sainte-Foy, Québec G1V 4L7 (CA). TREMBLAY, Alain [CA/CA]; 22 De L'Hôpital, Loretteville, Québec G2A 2T8 (CA).
- (74) Agent: ROBIC; Leger Robic Richard, CDP Capital Center, 1001, Victoria Square, Bloc E - 8th Floor, Montreal, Quebec H2Z 2B7 (CA).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
- Declaration under Rule 4.17:**
— of inventorship (Rule 4.17(iv)) for US only
- Published:**
— with international search report
- For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

(54) Title: METHOD FOR TREATING TUNGSTEN CARBIDE PARTICLES

(57) Abstract: A method for the treatment of tungsten carbide is provided. The starting material contains tungsten carbide particles of a W-C system represented on a phase diagram showing a monophasic domain of a γ phase having a face-centered cubic structure, upwardly delimited by a liquidus line. The particles are subjected to a homogenization treatment in the monophasic domain, and may be subsequently melted to be spheroidized. They are then quenched to freeze at ambient temperature the monophasic structure. Optionally, at least one alloying element may be added to the starting material to enlarge the monophasic domain, thereby increasing the hardenability of the monophased particles.

WO 2004/085690 A1